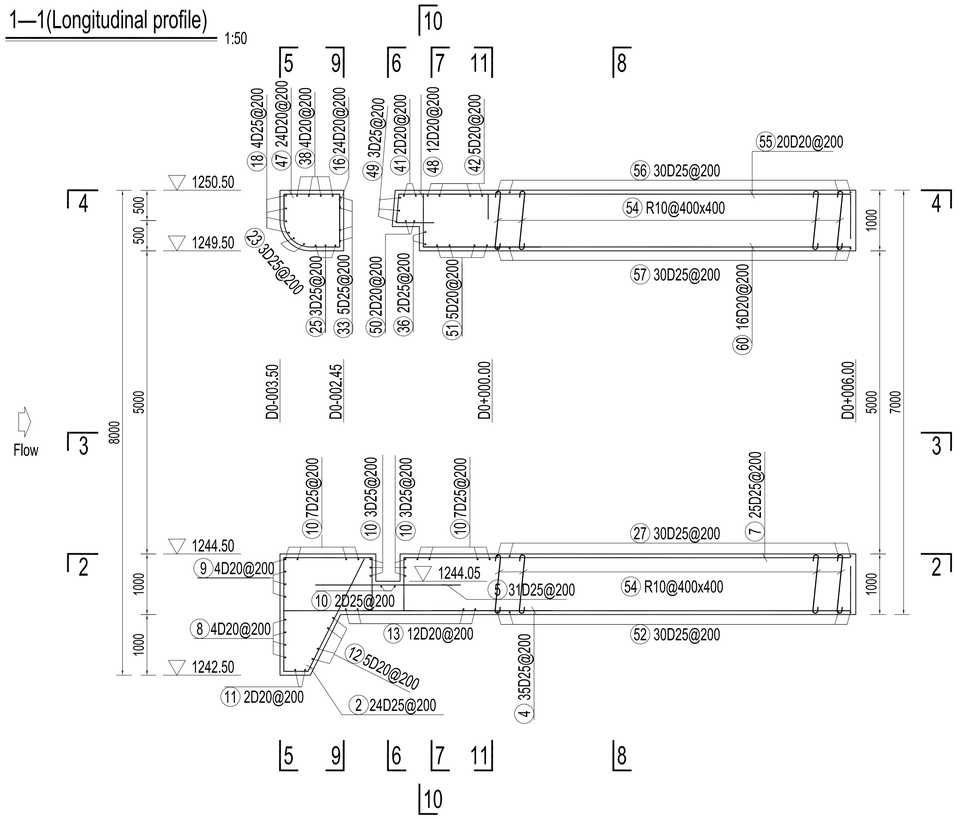
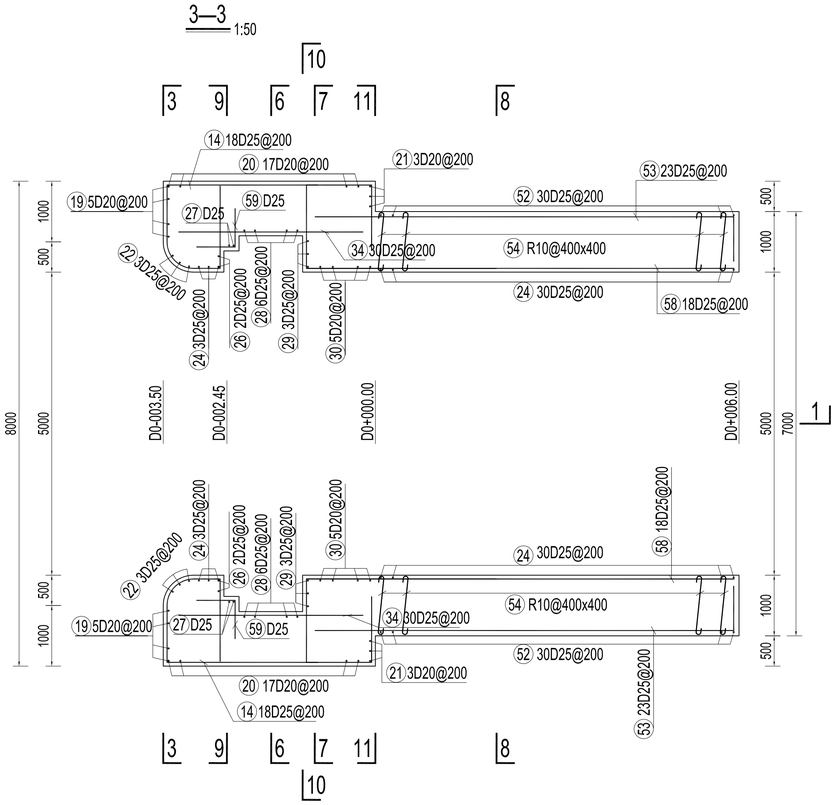
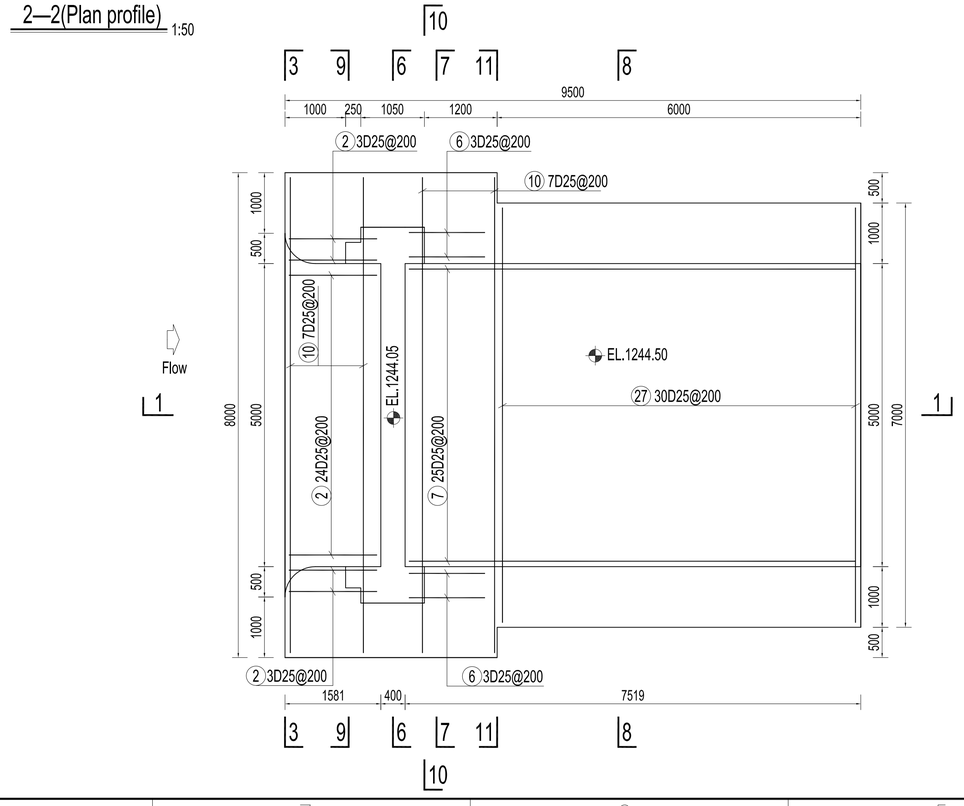
1—1(Longitudinal profile) 1:50



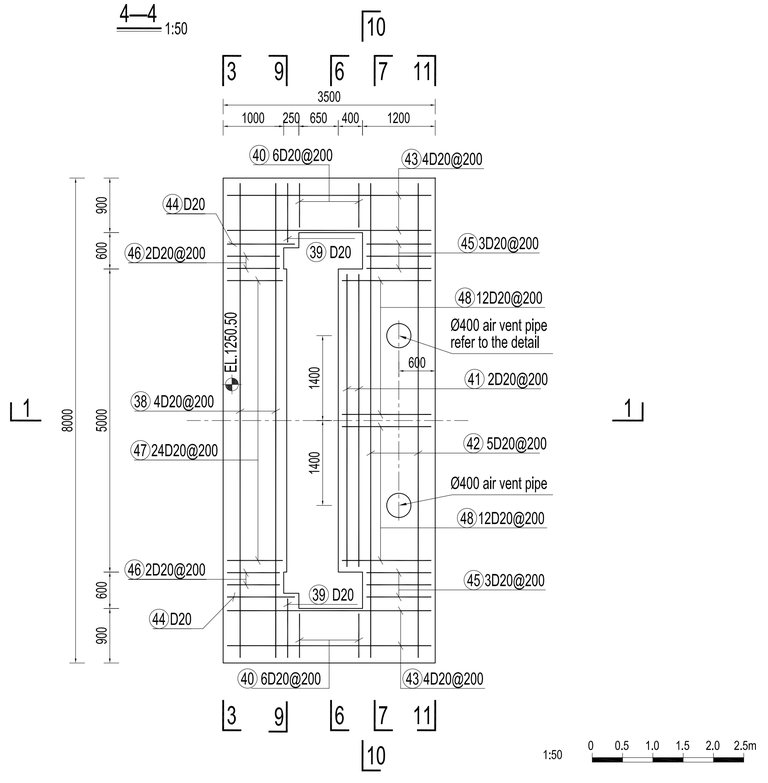
3—3 1:50



2—2(Plan profile) 1:50



4—4 1:50



1:50 0 0.5 1.0 1.5 2.0 2.5m

NOTE

1. This set of drawings are the reinforcement for inlet structure of diversion tunnel.
2. Elevations,chainages are measured in meter,diameter and space of rebar are in millimeter,dimensions are in millimeter unless otherwise stated.
3. The thickness of concrete cover is 75mm.
4. Symbol description:
   R denotes round bar, yield strength of the round bar is 280MPa.
   D denotes deformed bar, yield strength of the deformed bar is 500MPa;
5. Anchorage length and lap length of the steel rebar is 40 times and 50 times of the reinforcement diameter, respectively.

REFERENCE DRAWINGS

UT1-C-010-CVL-DG-42001	Arrangement drawing of diversion tunnel
UT1-C-010-CVL-DG-42002	Excavation and support drawing of inlet and outlet of diversion tunnel
UT1-C-010-CVL-DG-42008	Outline of diversion tunnel tower

SYMBOL AND LEGEND

FOR APPROVAL

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0C	27.Apr.2022	As RN-0114	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.
0B	01.Apr.2022	As RN-0100	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.
0A	5.Mar.2022	First issue	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.

PROJECT TITLE

Upper Trishuli-1 HEP (216MW)

OWNER

NWEDC NEPAL WATER AND ENERGY DEVELOPMENT CO. PVT. LTD.

OWNER'S ENGINEER

TRACTEBEL ENGIE jade CONSULT

CONTRACTOR

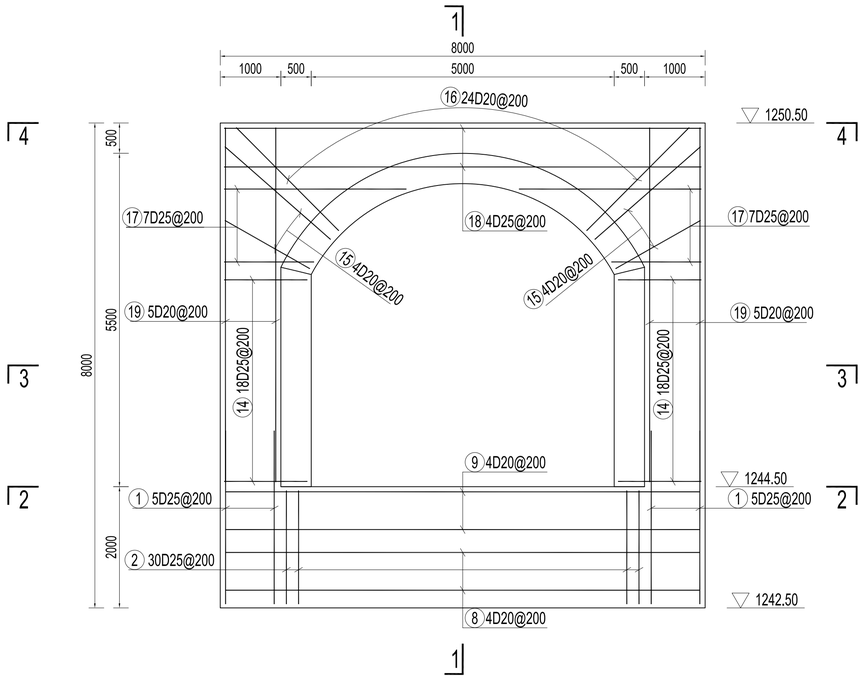
DOOSAN Doosan Enerbility

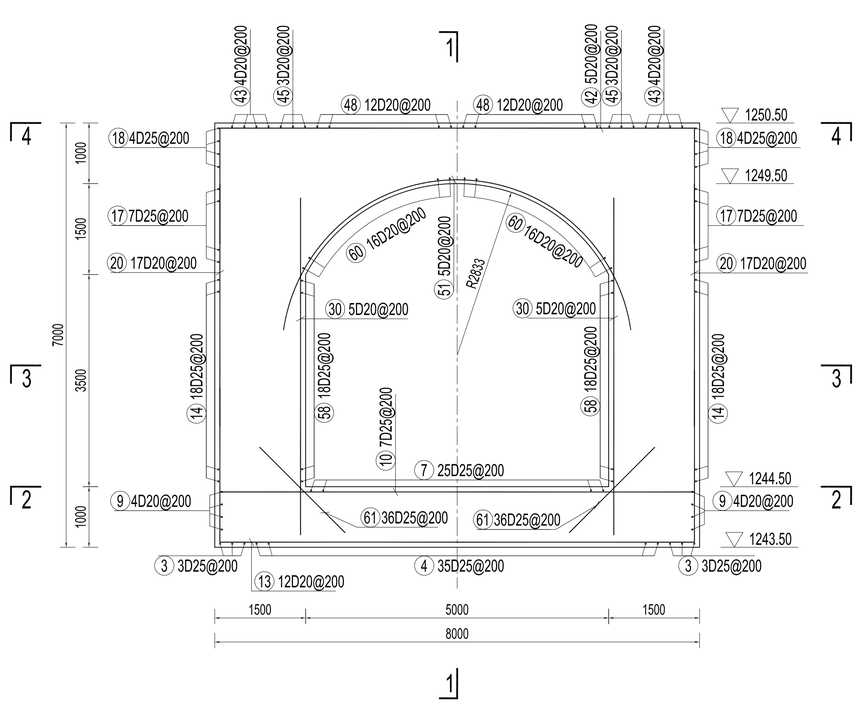
DRAWING TITLE

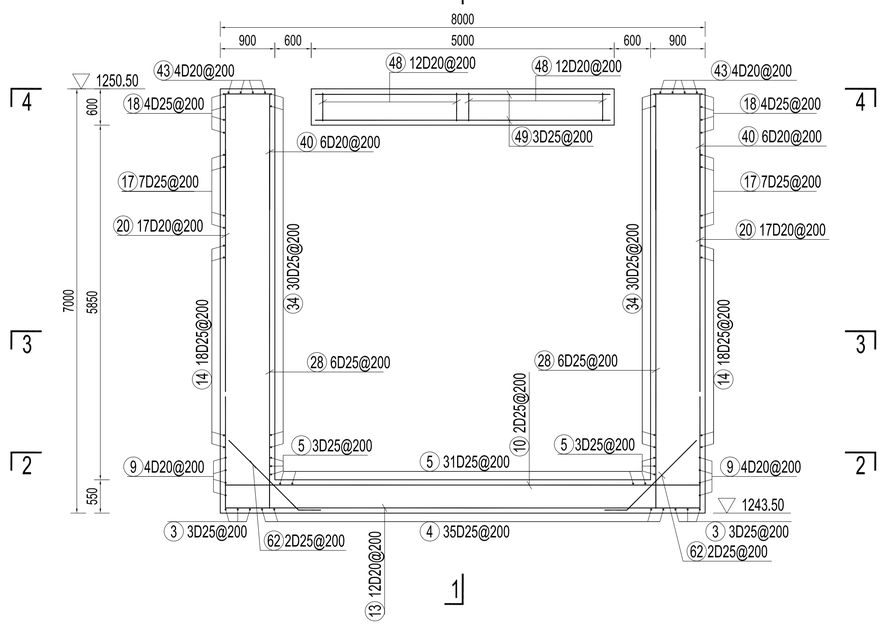
Diversion Facilities
Reinforcement Drawing of Inlet Structure of Diversion Tunnel

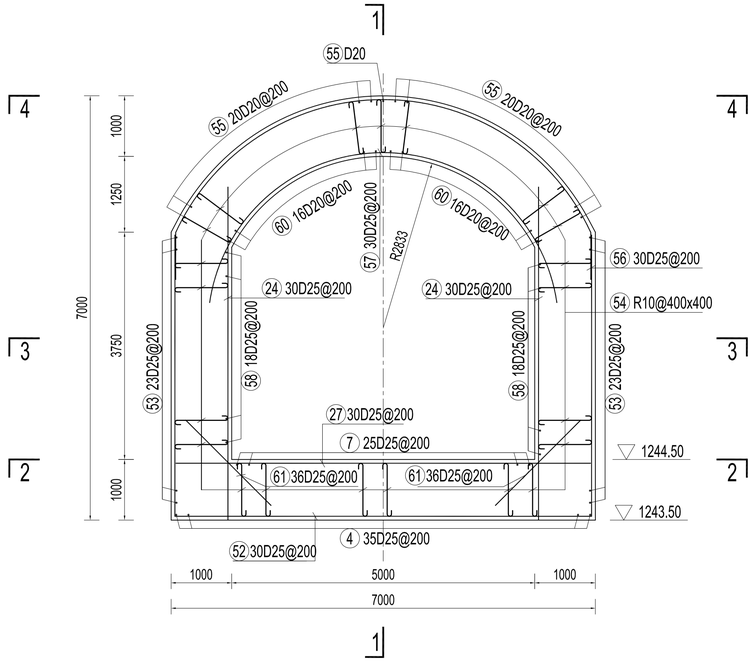
INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-010-CVL-DG-42004-1	1 OF 4	0C

A1 (594 x 841 MM)









1:50 0 0.5 1.0 1.5 2.0 2.5m

NOTE

1. This set of drawings are the reinforcement for inlet structure of diversion tunnel.
2. Elevations,chainages are measured in meter,diameter and space of rebar are in millimeter,dimensions are in millimeter unless otherwise stated.
3. Other notes refer to the 1/4.

REFERENCE DRAWINGS

UT1-C-010-CVL-DG-42001	Arrangement drawing of diversion tunnel
UT1-C-010-CVL-DG-42002	Excavation and support drawing of inlet and outlet of diversion tunnel
UT1-C-010-CVL-DG-42008	Outline of diversion tunnel tower

SYMBOL AND LEGEND

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0A	5.Mar.2022	First issue	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.

PROJECT TITLE

Upper Trishuli-1 HEP (216MW)

OWNER

NWEDC
NEPAL WATER AND ENERGY DEVELOPMENT CO. PVT. LTD.

OWNER'S ENGINEER

TRACTEBEL ENGIE
jade CONSULT

CONTRACTOR

DOOSAN Doosan Enerbility

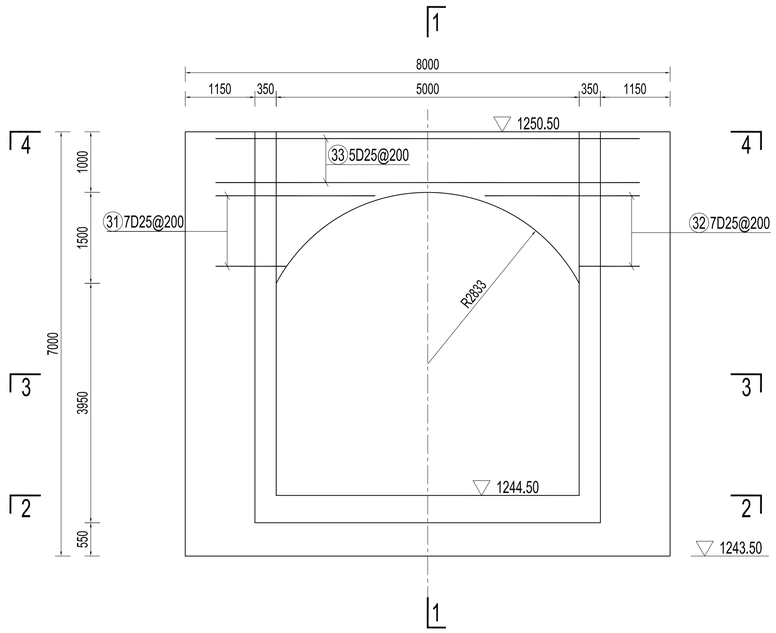
DRAWING TITLE

Diversion Facilities
Reinforcement Drawing of Inlet Structure of Diversion Tunnel

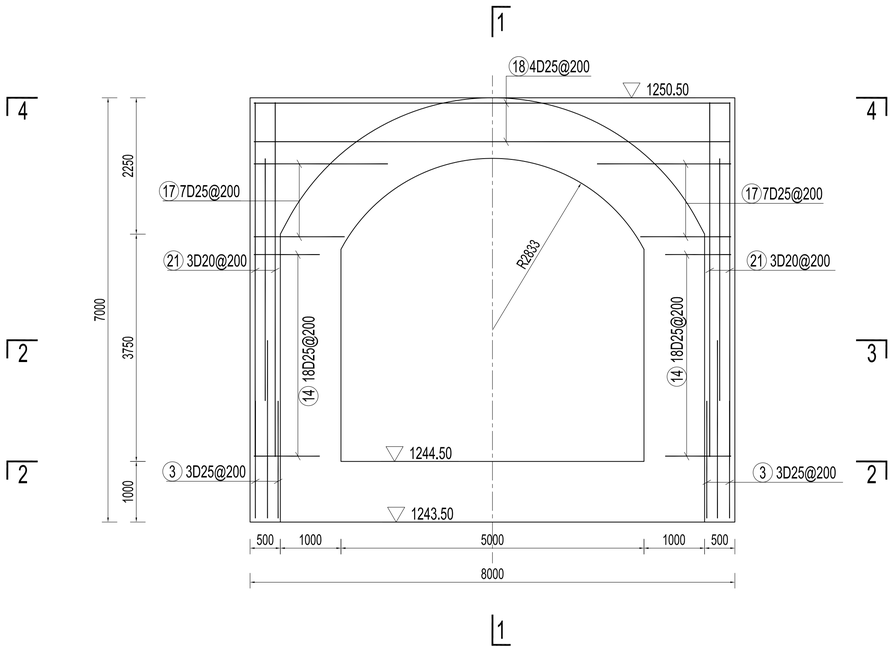
INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-010-CVL-DG-42004-2	2 OF 4	0C

A1 (594 x 841 MM)

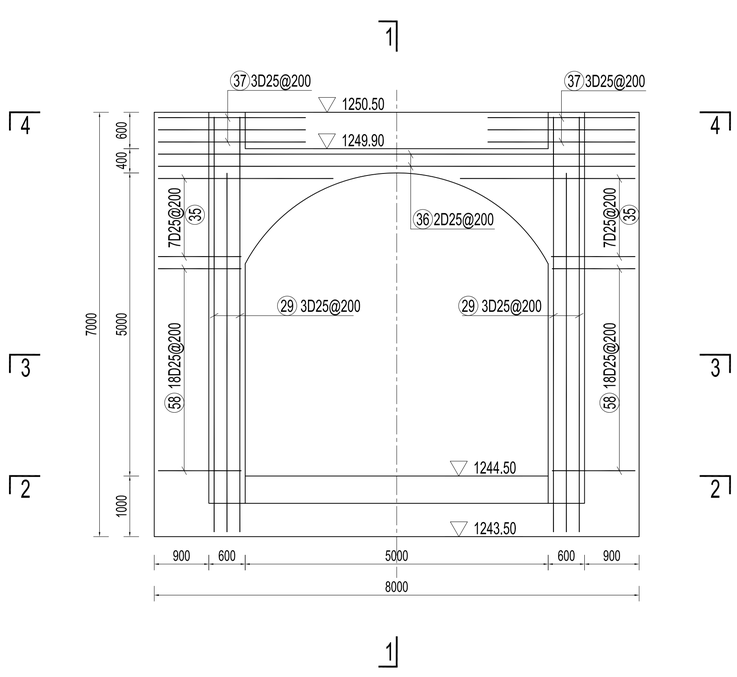
9—9
1:50
Local surface reinforcement



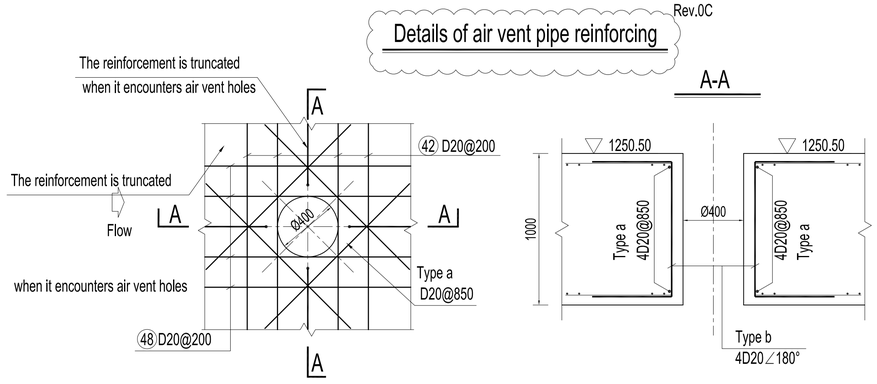
11—11
1:50
Local surface reinforcement



10—10
1:50
Local surface reinforcement



Details of air vent pipe reinforcing
Rev.0C



Dia.	Type a	QTY.	Remarks	Dia.	Type b	QTY.	Remarks
D20	1350	16	2 holes	D20	850 (800, 800)	8	2 holes

1:50 0 0.5 1.0 1.5 2.0 2.5m
1:20 0 0.2 0.4 0.6 0.8 1.0m

NOTE
1. This set of drawings are the reinforcement for inlet structure of diversion tunnel.
2. Elevations,chainages are measured in meter,diameter and space of rebar are in millimeter,dimensions are in millimeter unless otherwise stated.
3. Other notes refer to the 1/4.

REFERENCE DRAWINGS

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UT1-C-010-CVL-DG-42002	Excavation and support drawing of inlet and outlet of diversion tunnel
UT1-C-010-CVL-DG-42008	Outline of diversion tunnel tower

SYMBOL AND LEGEND

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0A	5.Mar.2022	First issue	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.

PROJECT TITLE
Upper Trishuli-1 HEP (216MW)

OWNER
NWEDC NEPAL WATER AND ENERGY DEVELOPMENT CO. PVT. LTD.

OWNER'S ENGINEER
TRACTEBEL ENGIE
jade CONSULT

CONTRACTOR
DOOSAN Doosan Enerbility

DRAWING TITLE
Diversion Facilities
Reinforcement Drawing of Inlet Structure of Diversion Tunnel

INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-010-CVL-DG-42004-3	3 OF 4	0C

A1 (594 x 841 MM)

Table of Reinforcement(1)

No.	Dia.(mm)	Shape(mm)			Single L(mm)	Qty.	Total L(m)	Remarks
①	D25	a 390 116.6° 2080	a			10		
			2850	5320		6	57.52	
			3930	6400		4		
②	D25	1430 1850 2080 850 150 116.6° 390			6750	30	202.50	
③	D25	b 3430	b			6		
			1930	5360		4	34.16	
			2930	6360		2		
④	D25	750 9350			10100	35	353.50	
⑤	D25	2400			2400	37	88.80	
⑥	D25	850 1240 150			2240	3×2	13.44	
⑦	D25	7369 850 150			8369	25	209.23	
⑧	D20	800 800 490~800 490~800 7850			10430~11050	4	42.96	Δ=103 Δ=103
⑨	D20	800 800 3350 3350 7850			16150	4	64.60	
⑩	D25	7850			7850	22	172.70	
⑪	D20	2850~3930 7850 2850~3930			15710~13550	2	29.26	
⑫	D20	c 7850 a	a	c		5		
			2670	2670	13190	1	66.85	
			3570	3570	14990	1		
			2330	2330	12510	1		
			3240	3240	14330	1		
			1990	1990	11830	1		
⑬	D20	c 7850 a	a	c		12		
			1850	1850	11550	6	151.56	
			2930	2930	13710	6		
⑭	D25	3350 930 1350 1080 R438 610 430			7810	18×2	281.16	
⑮	D20	a 680 480 d	a	d		8		
			1180	800	3140	2	27.74	
			1370	790	3320	2		
			1600	800	3560	2		
			1890	800	3850	2		
⑯	D20	a 680 480 800	a			24		
			1970	3930		2	69.28	
			1640	3600		2		
			1370	3330		2		
			1150	3110		2		
			970	2930		2		
			820	2780		2		
			700	2660		2		
			610	2570		2		
			530	2490		2		
			480	2440		2		
			440	2400		4		
⑰	D25	480 c 1080 c a 3350	a	c	d	14		
			1490	970	740	2	126.36	
			1590	1080	760	2		
			1690	1220	780	2		
			1810	1370	820	2		
			1930	1550	870	2		
			2060	1770	960	2		
			2200	2030	1120	2		
⑱	D25	7850 3350 3350 7850			30250	4	121.00	
⑲	D20	a	a			10		
			5850	5850		6	51.10	
			4000	4000		4		

Table of Reinforcement(2)

No.	Dia.(mm)	Shape(mm)			Single L(mm)	Qty.	Total L(m)	Remarks
⑳	D20	a	a			34		
			5850	5850		18	169.30	
			4000	4000		16		
㉑	D20	a	a			6		
			5850	5850		4	31.40	
			4000	4000		2		
㉒	D25	5500~5550			5500~5550	3×2	33.15	Δ=25
㉓	D25	8700 R8703			8700	3	26.10	
㉔	D25	5500			5500	66	363.00	
㉕	D25	8280 R2268			8280	3	24.84	
㉖	D25	6100~7030			7030~6100	2×2	26.26	Δ=930
㉗	D25	6850			6850	34	232.90	
㉘	D25	a	a			12		
			5930	5930		6	76.68	
			6850	6850		6		
㉙	D25	a	a			6		
			6850	6850		4	39.26	
			5930	5930		2		
㉚	D20	5100			5100	5×2	51.00	
㉛	D25	a	a			7		
			1170	1170		1		
			1220	1220		1		
			1390	1390		1	12.01	
			1590	1590		1		
			1840	1840		1		
			2160	2160		1		
			2640	2640		1		
㉜	D25	a	a			7		
			1010	1010		1		
			1150	1150		1		
			1320	1320		1		
			1520	1520		1	11.42	
			1770	1770		1		
			2090	2090		1		
			2560	2560		1		
㉝	D25	7000			7000	5	35.00	
㉞	D25	3050			3050	30×2	183.00	
㉟	D25	180 1350~3285 1000			2530~4465	7x2	48.97	Δ=276
㊱	D25	180 7850 180			8210	2	16.42	
㊲	D25	180 2430			2610	3×2	15.66	
㊳	D20	c 7850 a	a	c		4		
			930	1000	9780	2	42.98	
			1930	1930	11710	2		
㊴	D20	800 1000 2000			3800	1×2	7.60	
㊵	D20	c 750 a	a	c		12		
			1000	1000	2750	6	44.16	
			1930	1930	4610	6		
㊶	D20	4850 450 350 450 350			6450	2	12.90	
㊷	D20	c 7850 a	a	c		5		
			1000	1000	9850	3	52.97	
			1930	1930	11710	2		
㊸	D20	a 3350 c	a	c		8		
			1000	1000	5350	4	50.24	
			1930	1930	7210	4		

BOQ

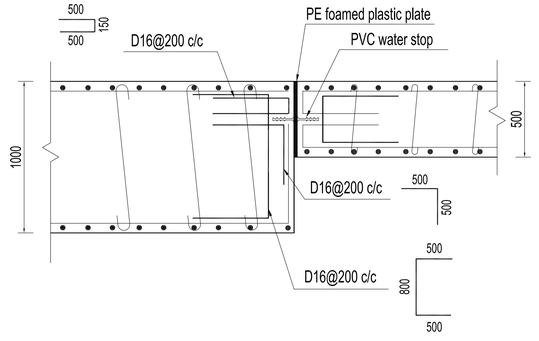
Dia. (mm)	Total length (m)	Unit W (kg/m)	Total W (kg)	Sum (t)
R10	799.20	0.617	493.11	23.34
D20	1750.15	2.470	4322.87	
D25	4812.57	3.850	18528.39	

Table of Reinforcement(3)

No.	Dia.(mm)	Shape(mm)	Single L(mm)	Qty.	Total L(m)	Remarks
㊹	D20	800 1100 800	2700	1×2	5.40	
㊺	D20	a 1050 c (a: 1000, 1930; c: 1000, 1930)	3050	6		
			4910	4	22.02	
				2		
㊻	D20	1000~1930 850 1000~1930	4710~2850	2×2	15.12	Δ=930 Δ=930
㊼	D20	800 900 800	2500	24	60.00	
㊽	D20	450 R294.6 1460 350 800	3060	12×2	73.44	
㊾	D25	1000 4850 1000	6850	3	20.55	
㊿	D20	4850	4850	2	9.70	
(51)	D20	7900 R2909	7900	5	39.50	
(52)	D25	4630 6850 4630	16110	30	483.30	
(53)	D25	750 6930	7680	23×2	353.28	
(54)	R10	130 850 130	1110	120×6	799.20	
(55)	D20	750 6720	7470	41	306.27	
(56)	D25	8560 R3711 780 780	10120	30	303.60	
(57)	D25	8300 R2298	8300	30	249.00	
(58)	D25	1000 7050	8050	36	289.80	
(59)	D25	1000 1000	2000	30x2	120.00	
(60)	D20	850 7050	7900	16×2	252.80	
(61)	D25	2000	2000	90	180.00	
(62)	D25	320 72° 1630	2000	2×2	8.00	

Details of waterstop reinforcing

Rev.0C



NOTE

1. This set of drawings are the reinforcement for inlet structure of diversion tunnel.
2. Elevations,chainages are measured in meter,diameter and space of rebar are in millimeter,dimensions are in millimeter unless otherwise stated.
3. Other notes refer to the 1/4.

REFERENCE DRAWINGS

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UT1-C-010-CVL-DG-42002	Excavation and support drawing of inlet and outlet of diversion tunnel
UT1-C-010-CVL-DG-42008	Outline of diversion tunnel tower

SYMBOL AND LEGEND

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0A	5.Mar.2022	First issue	Han Y.H.	Lei Y.G.	Luo L. Wang C.G.

PROJECT TITLE

Upper Trishuli-1 HEP (216MW)

OWNER

NWEDC NEPAL WATER AND ENERGY DEVELOPMENT CO. PVT.LTD.

OWNER'S ENGINEER

TRACTEBEL ENGIE jade CONSULT

CONTRACTOR

DOOSAN Doosan Enerbility

DRAWING TITLE

Diversion Facilities
Reinforcement Drawing of Inlet Structure of Diversion Tunnel

INDEX	DRAWING NUMBER	SHEET NO.	REV. NO.
A	UT1-C-010-CVL-DG-42004-4	4 OF 4	0C

A1 (594 x 841 MM)